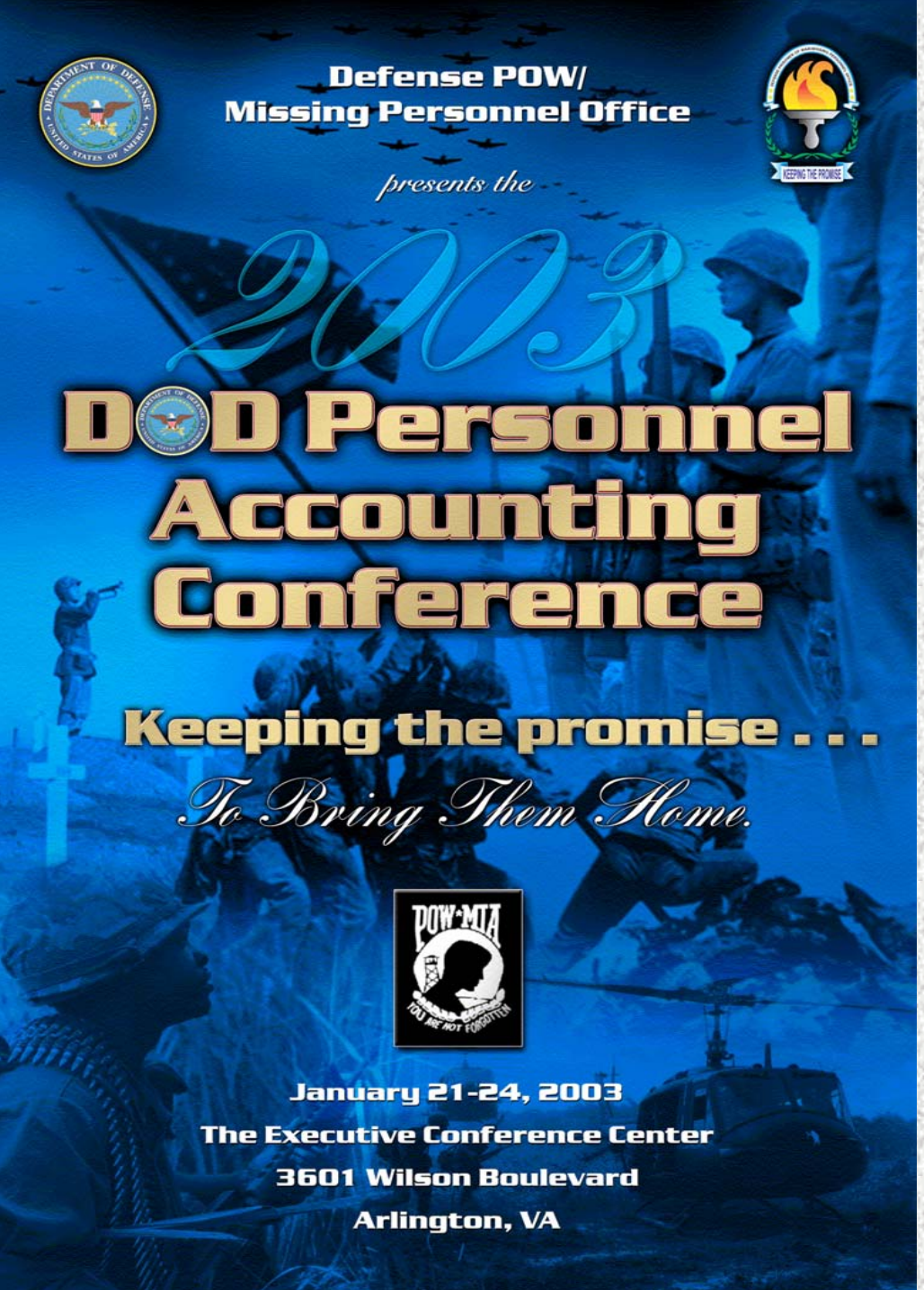


Armed Forces DNA Identification Laboratory (AFDIL)

Strategic Resources Planning Summit

Step Two: AFDIL Implementation

27 July 2001

AFDIL - 29 November 2000

- targeting requirements set forth in 16 June 1997 memo
- anticipating 3-5% annual cost increase
- struggling to retain personnel in face of competition

- challenges exacerbated by 20% budget cut in May 2000

- connectivity perceived as major concern of CILHI
- Korea FRS database seen as increasingly critical
- impasse with Punchbowl remains

Sense that AFDIL not part of the long term planning process.

CILHI - 29 November 2000

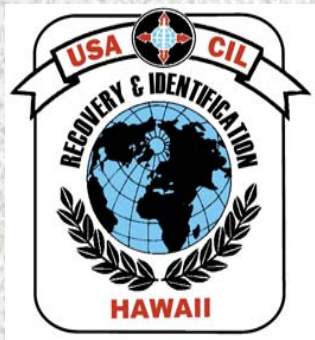
Current Casework Allocation: 400 Specimens

Future Casework Allocation:

- **Annual Requirement: 352 Case Units 900 Specimens**
  - Workload SEA (Stable) 124
  - Workload WWII (x3.0) 90
  - Korea Workload (x2.5) 138
  - Family Reference Specimens 600-1000/Year
- **Korea Backlog: 1515 Case Units 4500 Specimens**
  - Backlog unilateral 500
  - Backlog JROs 150
  - Punchbowl Max of 865 cases
  - Other Disinterments Unknown

AFDIL Proposal Based Upon Consideration of:

Personnel - what number and mix will be the most productive and still manageable?
Space - how much expansion can occur in present location without seeking new facilities and adding significantly to cost?
Technology - how much can we leverage science and save on personnel and space?

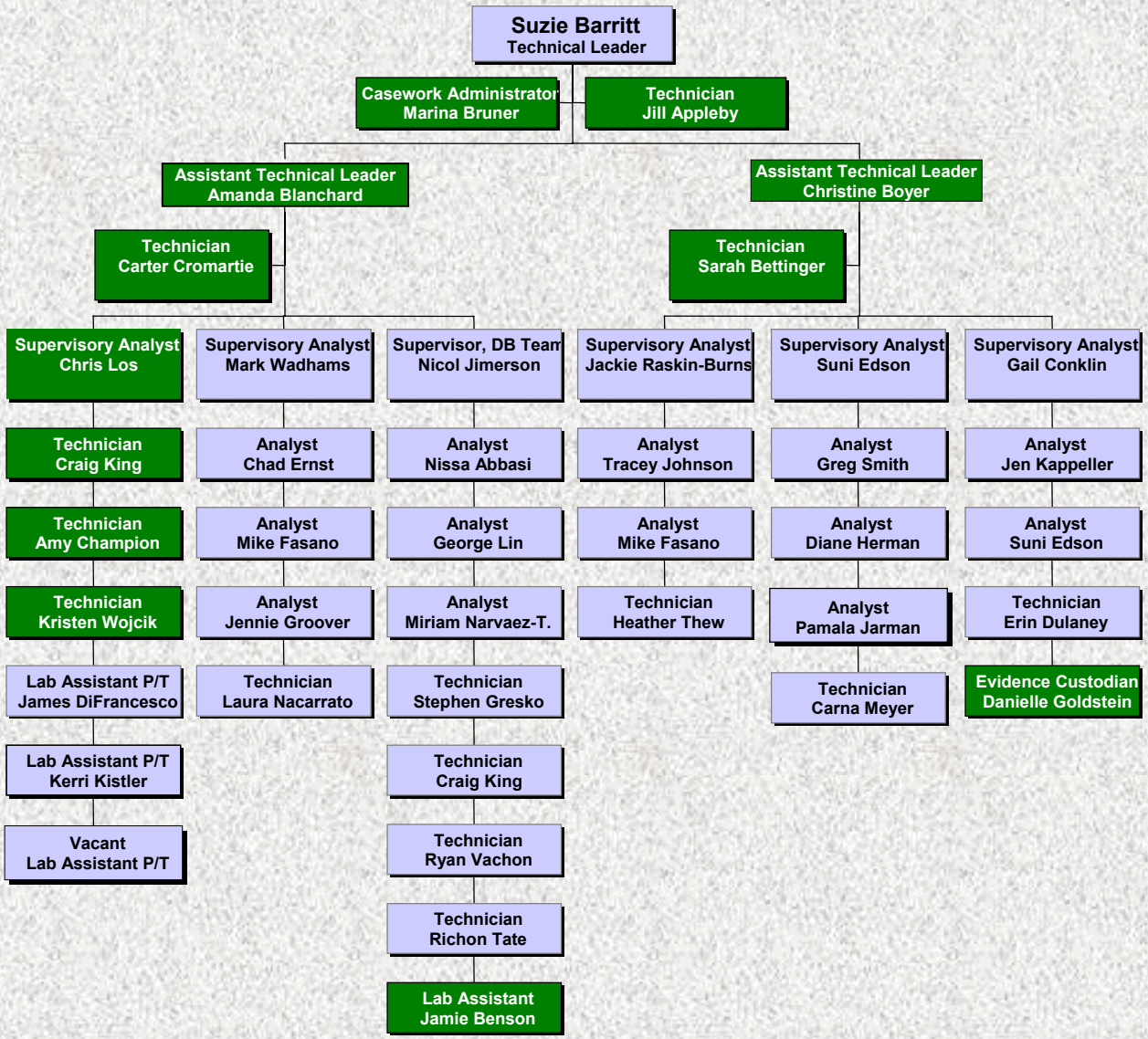


Implementation Plan For The AFDIL Mission Expansion FY03-07

Assumptions

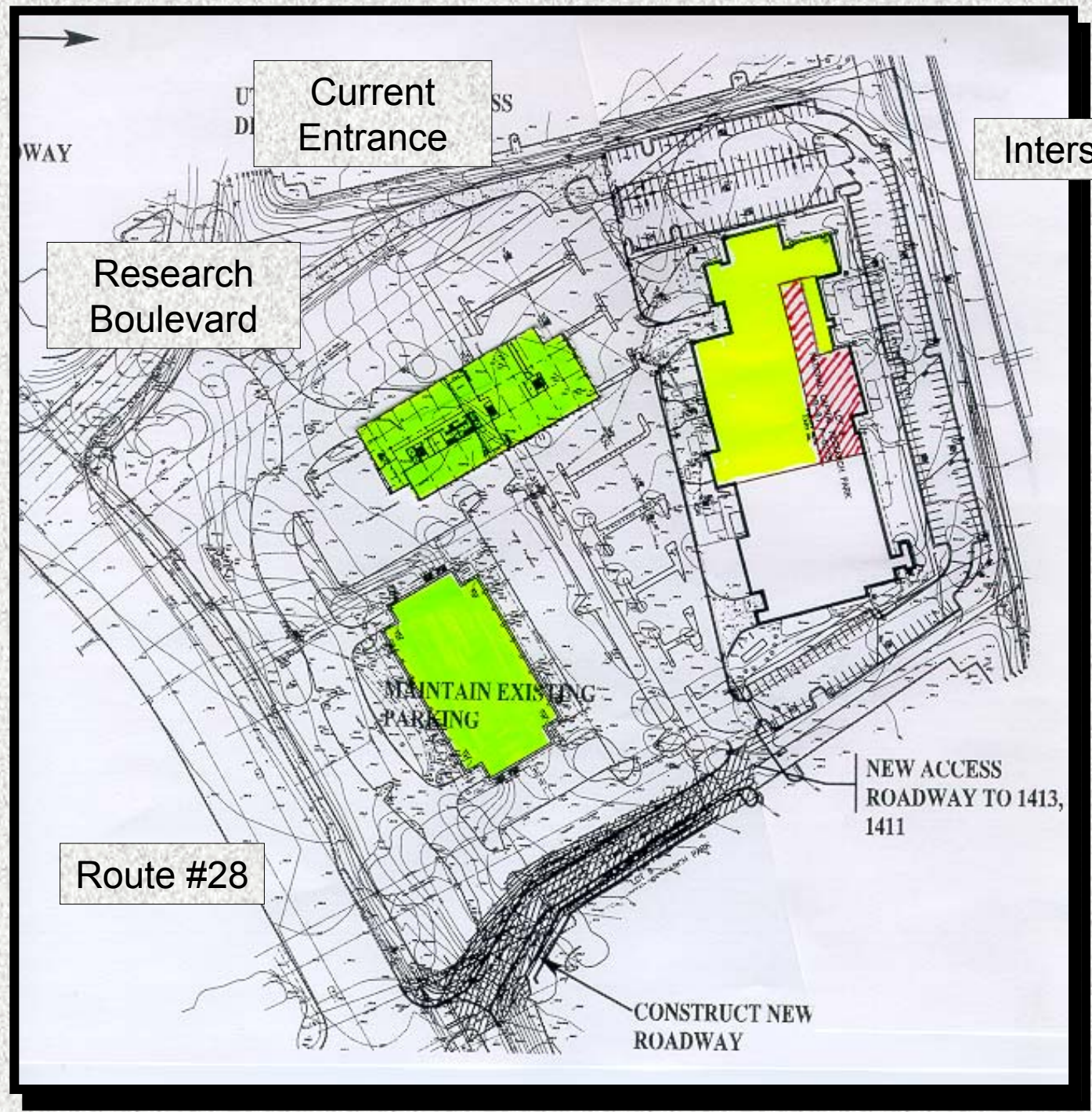
- AFDIL will need to expand operations from 400 specimens per year to 800 specimens per year by FY 05.
- Funding for the AFDIL/CILHI expansion has been briefed and approved in Army POM FY03-07 under Army MDEP: VREM which includes CILHI, AFDIL, and JTF-FA support.
- Existing AFDIL mtDNA Technical staff will form the nucleus for the expanded mission.
- Existing laboratory space will be initially adequate to initiate expansion in FY 02-03 but additional space may be required for support functions and administrative space.
- No known commercial laboratory meeting DoD Quality Assurance Oversight Committee standards would be able to meet the 400 specimen requirement.

mtDNA Section FY 2002



Second Floor, Building 101, Gillette

Available September 2001

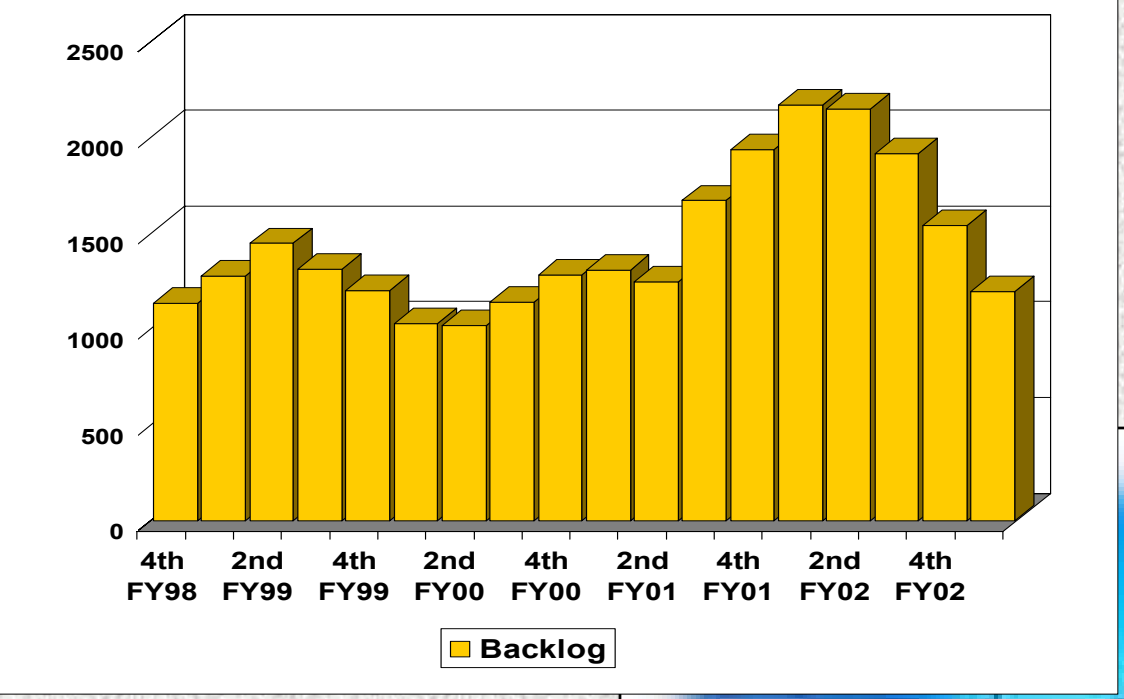


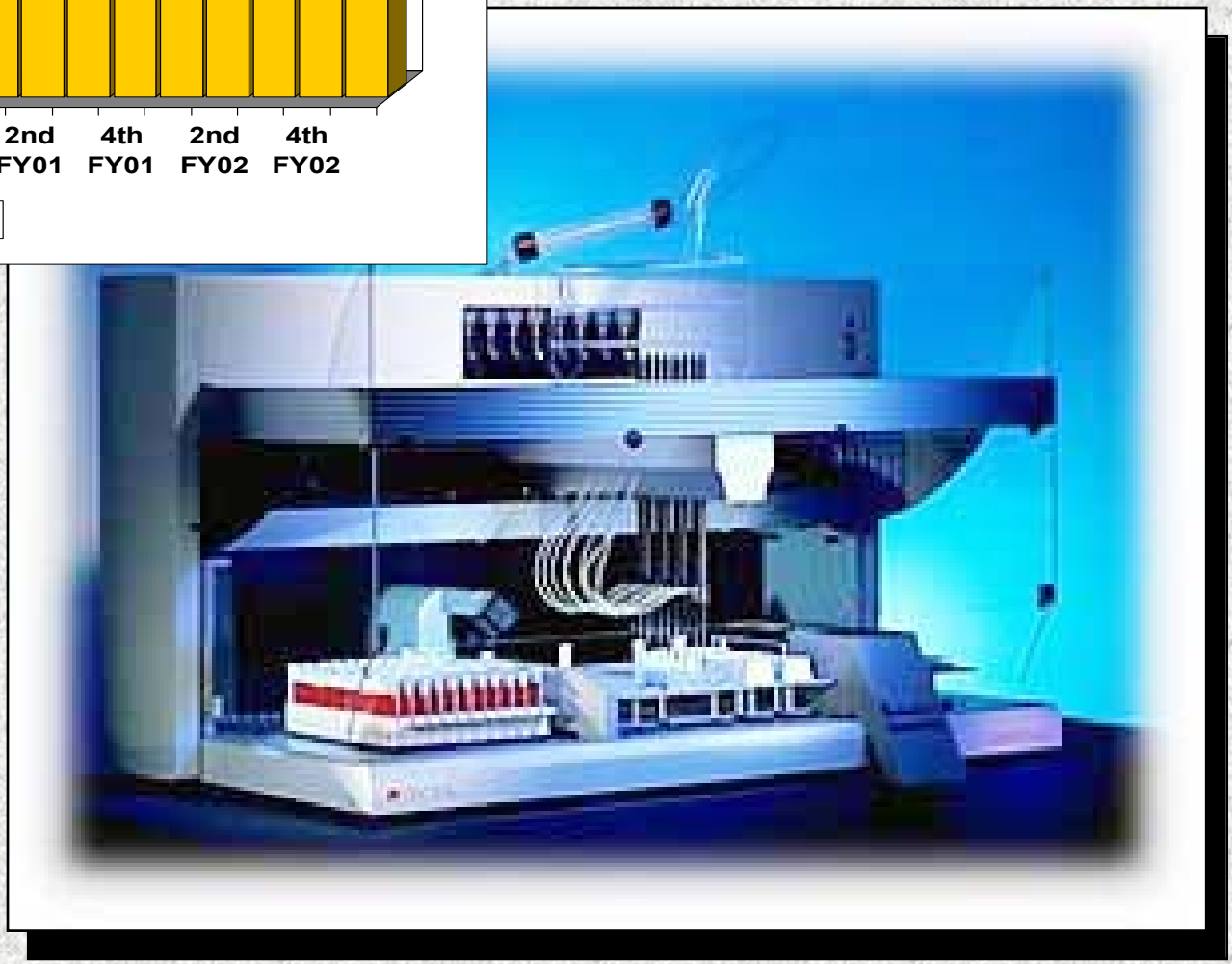
National Capital Research Park

ABI Prisim 3100 Genetic Analyzer

ABI 377

Robotics and automation to address FRS backlog…

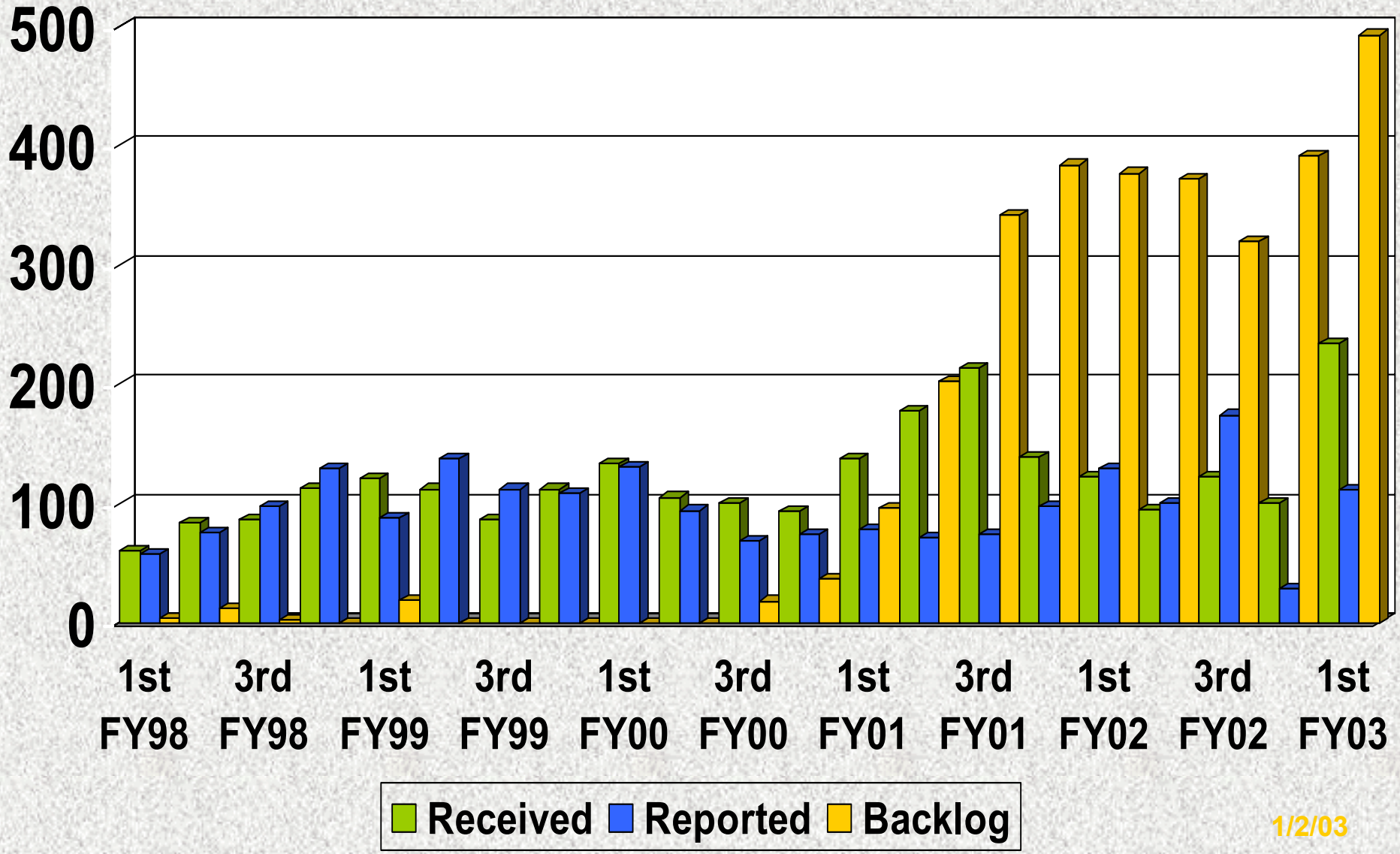




… with online review of data

CILHI Specimens

Received – Reported - Backlog

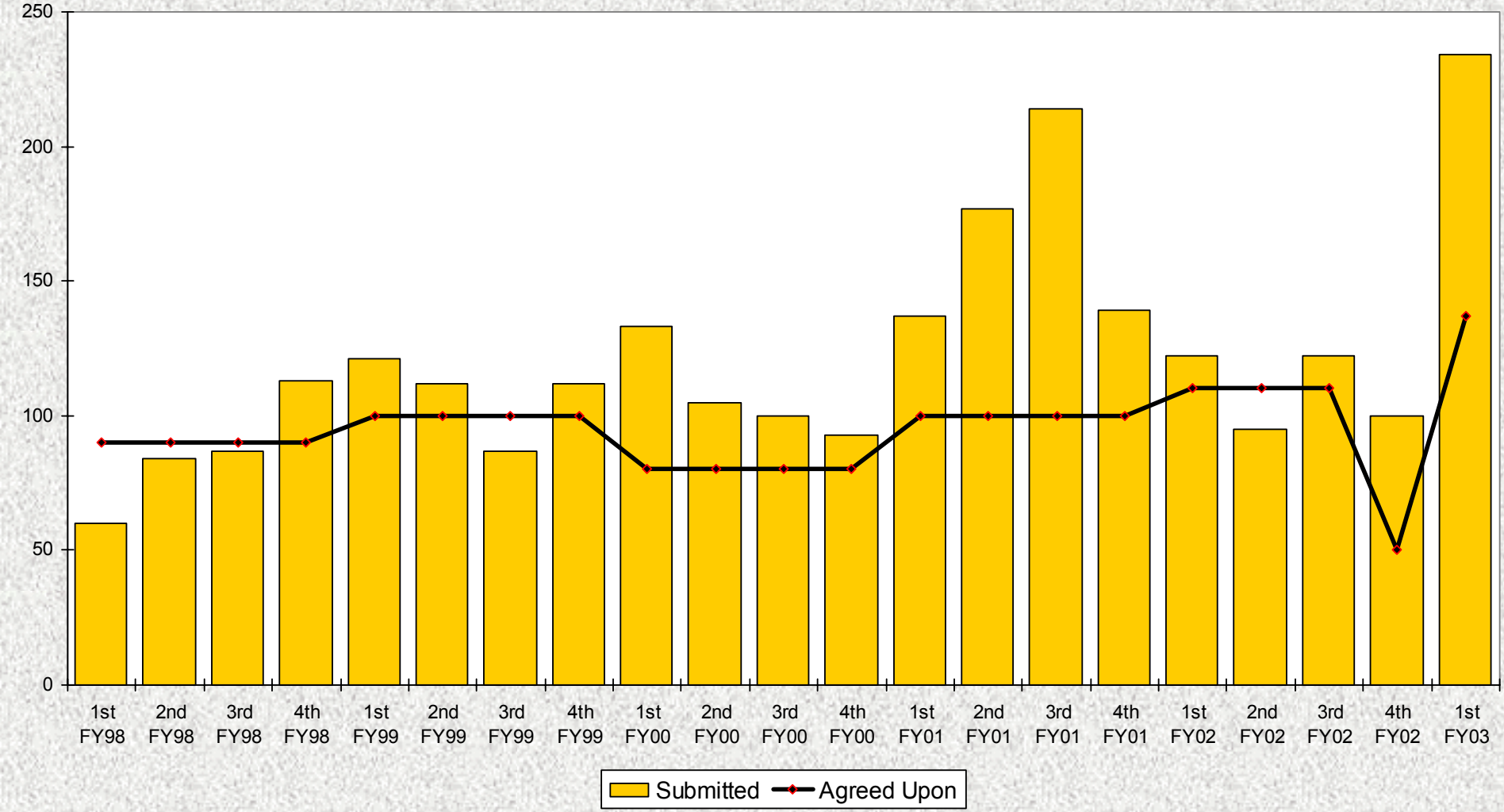


1/2/03

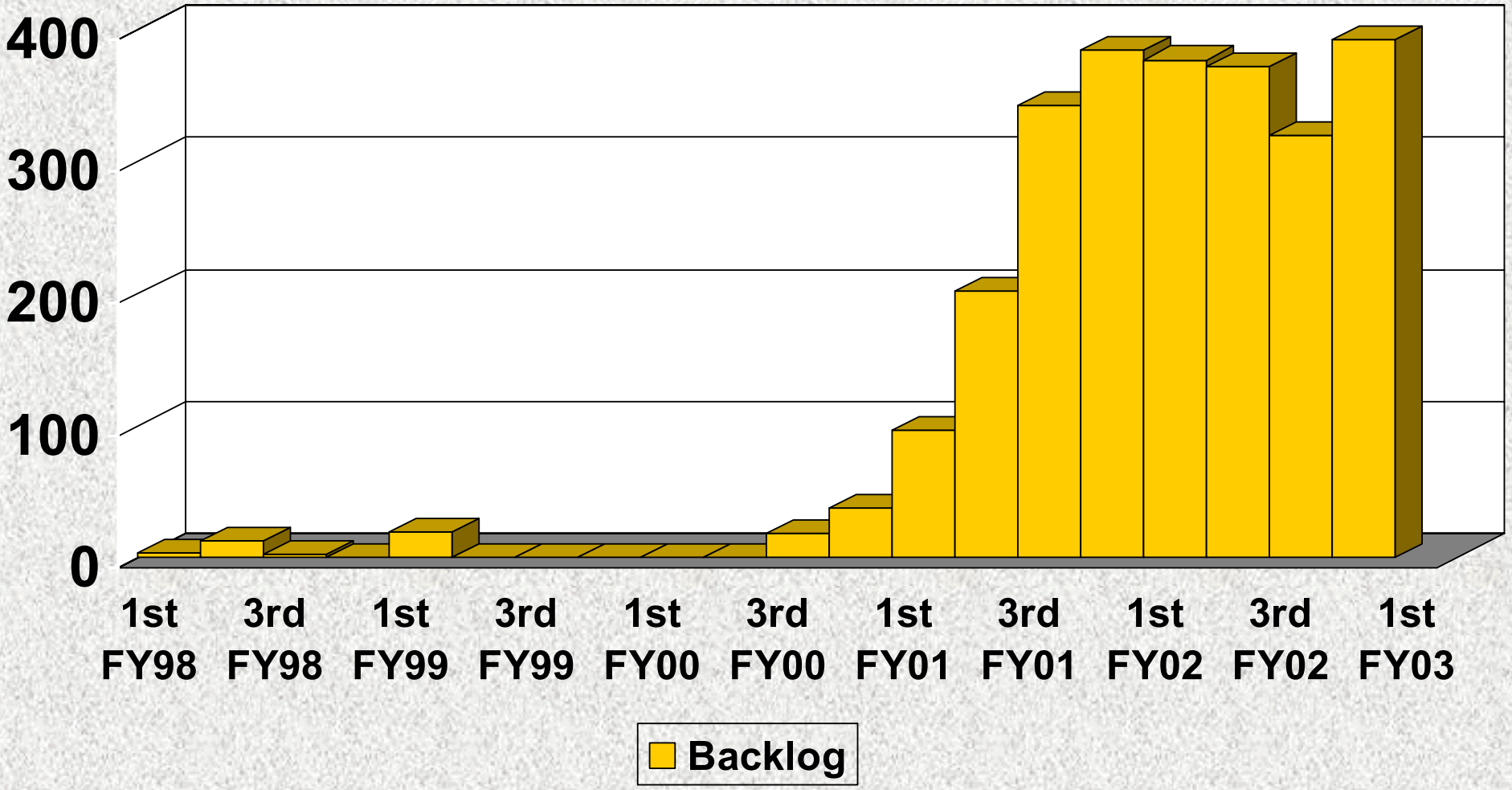
1/2/03

CILHI Specimens

Agreed Upon vs Submitted

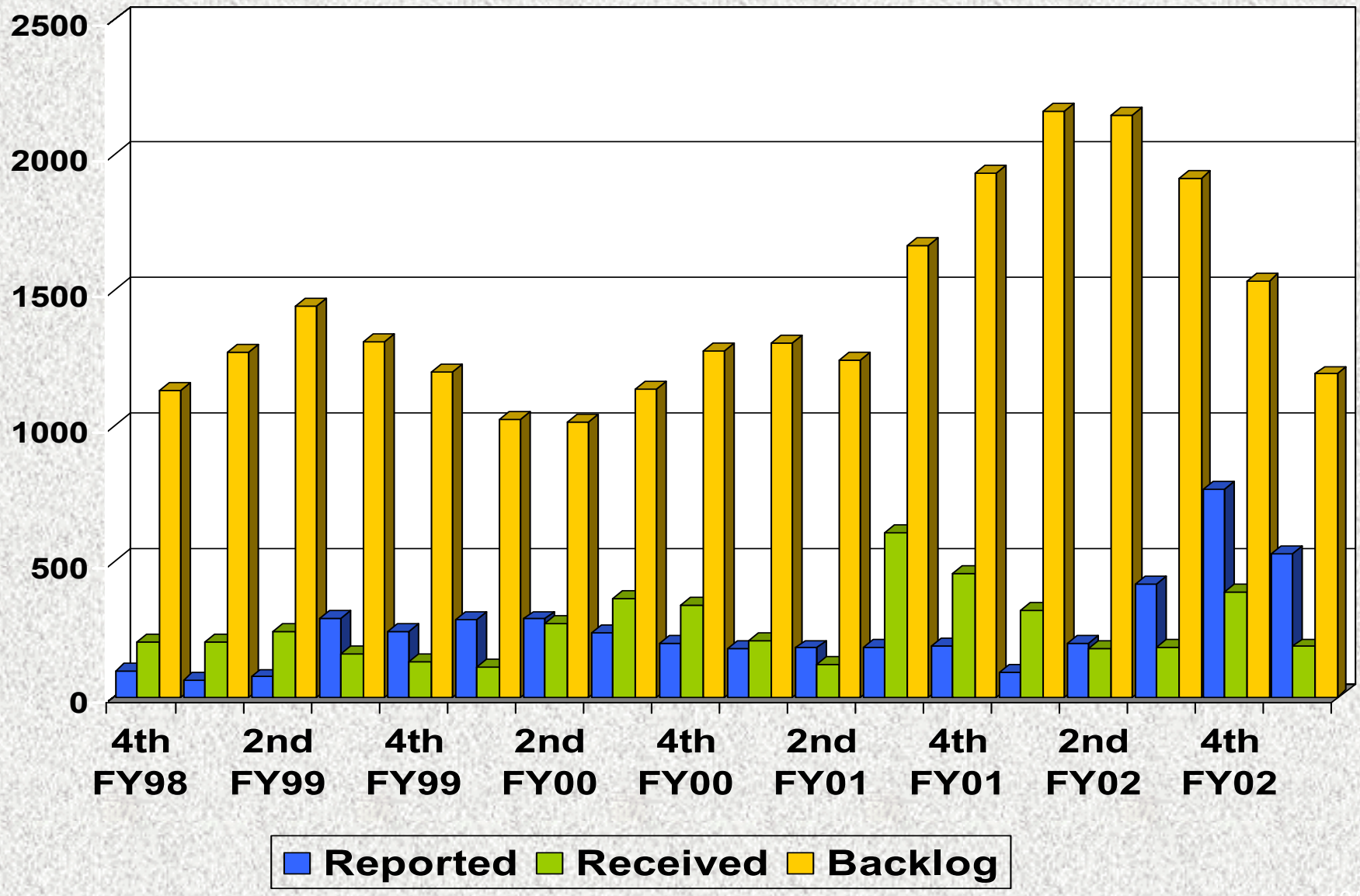


CILHI Specimens



Family Reference Collections

(Received – Reported – Backlog)



Future Plans for IT

- improved Web access performance (XML)
- Upgrade to MS SQL/Server2000 (Access 97)
- Application security (i.e. adjust according to need to know)
- Online submission of comparison requests
- Online viewing of reports and comparison results
- Improved compatibility/connectivity with CARIS
- CILHI CoC functionality in LISA (AFDIL benefit)
- Real-time accessioning of family reference

Current Application Support

- Access to our in-house Laboratory Information Systems Applications (LISA) with shared disk space (ask online for comparison requests)
- Automatic email notification of comparison results

- FamilyWeb Version 6.02 with 512 bit encryption
  - CILHI and SCOs
  - Searchable with status
  - Export utility for CARIS

- New mtDNA sequence search engine

Implementation Plan For The AFDIL Mission Expansion FY03-07

Workload and Funding

	FY 02	FY 03	FY 04	FY 05	FY 06	FY 07
Current Workload Specimens	400	400	400	400	400	400
Funding	~~$5.60m~~ $5.01	~~$5.95m~~ $6.1	$6.16m	6.37	$6.60m	$6.83m
FY03-07 Workload Specimens	150	250	350	4[illegible]	400	400
Funding	~~$2.81m~~ $1.8	$4.50m	$4.83m	$5.00m	$5.17m	$5.35m
Manning PEG Pgm Decision		550	($269k)	([illegible]k)	($269k)	($269k)
Approved FY03-07 POM	~~$7.61m~~ $6.81m	$10.45m	$10.71m	$11.10m	$11.50m	$11.90m

?

1. **What does CILHI need in terms of DNA support?**

For lack of better guidance we continue to work from the numbers generated from the Planning Summit of November 2000. (550/650 samples for FY2003 and 800 by FY2007). Is this "resourcing reality?"

2. **Who will pay that bill and what degree of support will they provide?** ??

3. **Can AFDIL become more cost-effective?**

Absolutely. By retaining a complete and fully trained staff with validated equipment, we are in better position to process more samples and continue to provide the general program support that CILHI is unlikely to get from a straight fee-for-service contract lab.

4. **Should CILHI or AFDIL contract with another Lab?**

Maybe. Where would that funding come from? Does CILHI fully appreciate the short-comings of a straight fee-for-service contract? Would two labs working the same set of cases cause problems with oversight, quality control, case management and the families?

5. **Would a DNA Lab at CILHI help the back-log?**

Maybe. See first and last points of previous question.

FY 02

MEDCOM
$3.8m

PERSCOM
$6.8m

Other Federal Casework

- FBI $334K
- USCG $30K
- DOS $315K
- DOJ $70K
- USN MMSO $5K

Non-Federal Casework

- GWU $40K
- Georgia $438K
- OCW ID $23K
- OCW Clin $6K

Research Grants

- NIJ $225K
- ARP $17K

DNA Laboratory

Turn-around time (TAT) and Cost

	Mito typing	Fairfax Identity	LabCorp	IdentiGene	Bode	Reliagene	Cellmark	Bio Synthesis
STR $	N/A	350 13 loci	750 10 loci	500 13 loci?	895 13 loci	+800 13 loci	845-995 9 loci	650 9 loci
STR TAT	N/A	2 weeks +450	4-5 weeks		2 weeks	10 days +500	30 business days +400	
mtDNA $	3000	N/A	1500	1500-3000	1500-3000	1100-1300	N/A	800
mtDNA TAT	Stat +500- 1000	N/A	4-5 months	6-8 weeks			N/A	6-8 weeks

Summary:

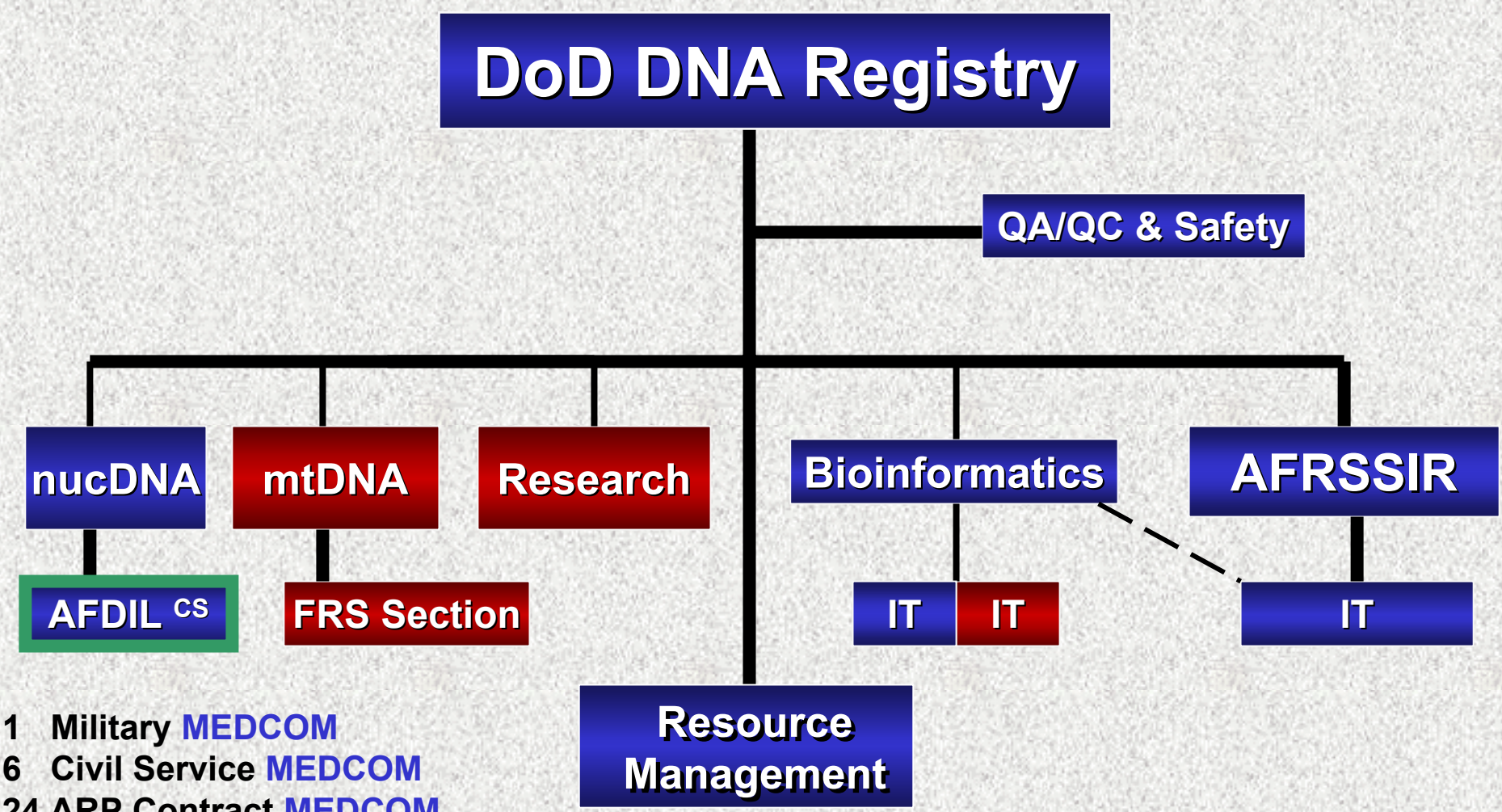
DNA REGISTRY
DEPARTMENT OF DEFENSE

Proactive personnel and space planning

Multi-year MOA would provide greater continuity and eliminate "stutters" in productivity (base on POM cycle)

Long term DNA success dependent upon reliability of resources

Increased operational interaction between CILHI and AFDIL



1 Military MEDCOM
6 Civil Service MEDCOM
24 ARP Contract MEDCOM
51 ARP Contract PERSCOM
10 IT Contractors MEDCOM/PERSCOM
3 ARP Contract (Special Projects) Registry

95 Total Staff (59 Scientists)